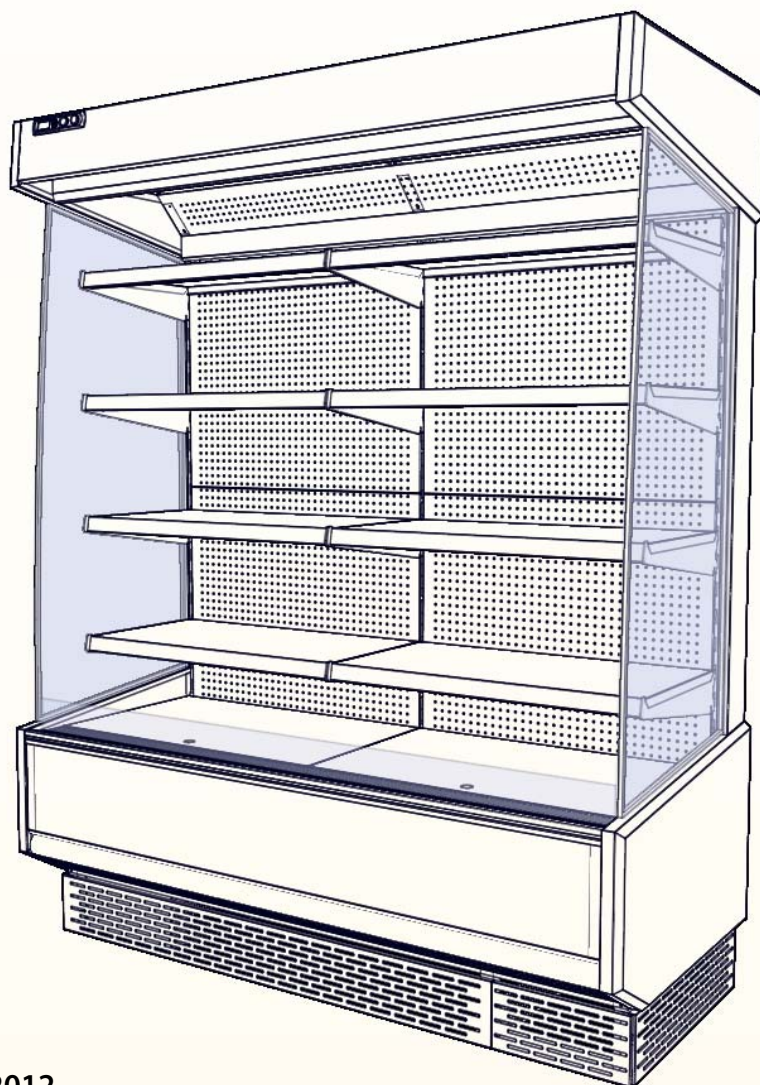


Installation, Operation and Troubleshooting Instructions Reach-In Refrigerators

For Models: RC



Print Date: June 19, 2012

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T H A N K Y O U

Thank you for purchasing a Interlevin Refrigerator! This unit has passed our strict Quality Control Inspection and meets the high standards set by Interlevin. You have made a quality investment that with proper maintenance will give you years of service.

Please read the following installation and maintenance instructions before installing or using your unit. If you have any questions, please call our Customer Service Department at +44 0 1332 850064.

IMPORTANT INFORMATION - PLEASE READ

- Please read these instructions carefully before installing or using. If recommended procedure are not followed, warranty claims will be denied.
- Interlevin reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.
- A detailed Owners Manual with a troubleshooting guide, parts lists and additional information can be ordered from the factory.

INSTALLATION INSTRUCTIONS

Proper installation is the first step to operation. We recommend that your refrigerator be installed by authorized Interlevin Certified Installer.

Receiving Shipment

All units are performance tested and thoroughly inspected prior to shipment. Upon leaving the factory, all units are in perfect condition. Upon receipt, examine the exterior of the shipment packaging for any signs of rough handling. If the cabinet is damaged, it should be noted on the delivery slip or bill of lading and signed. A claim must be filled immediately against the carrier indicating the extent and estimated cost of damage incurred.

Uncrating

Tools Needed: 3/4" Box Wrench • Adjustable Wrench • Level

WARNING: Never lay your refrigerator down on either its back, front or sides. This allows compressor oil into the refrigerant lines which can damage the compressor at start-up. If the unit is laid down, it must be set upright for a minimum of 12 hours before starting the compressor. Failure to adhere to the above recommendation will void the warranty.

1. Split plastic wrap along one of the cardboard posts. Remove and discard all packaging material, tape and interior components.
2. Move cabinet as close to final location as possible before removing skid.
3. Remove the shipping skid by tipping the cabinet forward. Remove the shipping bolts with 3/4" box wrench while the cabinet is held in one direction. Repeat this procedure while the cabinet is held in the opposite direction.
4. Use extreme caution when removing the wooden skid, especially when the last bolt is removed. If not properly blocked, the skid will fall to the floor.

Locating Your New Storage Refrigerator

Consider the following when selecting a location for your refrigerator.

1. **Clearance** - There must be a minimum clearance of 10" between the top of the refrigerator and the ceiling.
2. **Floor Load** - The floor on which the cabinet will rest must be free of vibration and suitably strong enough to support the combined weights of the cabinet plus the maximum product load.
3. **Ventilation** - The air cooled, self-contained refrigerator requires a sufficient amount of cool, clean air. Avoid placing the refrigerator near heat generating equipment such as ovens, ranges, heaters, fryers, steam kettles, etc. and out of direct sunlight. Avoid locating the self-contained refrigerator in an unheated room, or where the room temperature may be below 12°C.

Leveling

Cabinets must be leveled when installed. Failure to level your cabinet may result in doors not sealing, closing properly or condensate water not draining properly.

Legs - Rotate the foot of the leg with an adjustable wrench to achieve desired height for leveling.

Cabinet Cleaning

Prior to placing your new refrigerator and all shelves, pans and slides into operation, it is advisable that the interior be washed thoroughly with a mild detergent and water solution. Rinse with clear water and a sanitizing solution. Allow cabinet to air dry.

Installing Shelves

All cabinets with shelves are supplied with pilasters and shelf clip supports. Shelves are easily installed by inserting the shelf support clips into the pilasters so they fit tightly. Align the shelf so the smaller fill wires run from front to rear and rest the shelf on the clips.

Electric Supply

Wiring should be done by a qualified electrician in accordance with local electrical codes. **A separate earth wire must be supplied for all installations.** A properly wired refrigerator will assure proper operation. Electrical supply requirements are on the cabinet serial/data plate. It is recommended that a direct, properly protected line of the proper size wire be installed from the main supply to your refrigerator. To assure that the correct voltage is being supplied, while the refrigerator is in operation take a voltage reading at the motor-compressor electrical connections, or as close to the motor-compressor as possible.

All refrigerator electrical systems are internally earthed.

Temperature Control

Temperature control should be set to maintain a temperature of 38°F (3.3°C) to 40°F (4.4°C) for refrigerators.

Installation Checklist

After the cabinet has been installed, leveled and cleaned as described, refer to the following checklist prior to start-up.

- ☒ Check for proper electrical connection.
- ☒ Check exposed refrigeration line connections for leaks. Make sure refrigeration lines are not dented, kinked or rubbing.
- ☒ Check condenser fan for freedom to rotate without striking any stationary parts.
- ☒ Check that cabinet is level.

Product Load

After the refrigerator has been started and reaches the proper storage temperatures, food may be loaded. For optimum energy efficiency, we recommend allowing a 1-1/2" clearance between the interior cabinet wall and product load.

ENVIROMENTAL PROTECTION

This equipment does not contain CFC's. Neither inflammable gases.

Unpacking

All packing materials are recyclable and should be eliminated according to local regulations. Plastic bags must be kept away from children in order to avoid potential hazard.

End of life cycle

When the product reaches the end of its life cycle, we recommend to:

1. Make it unusable (ex. by cutting the power supply cable);
2. Remove the doors and other element, which eventually could be harmful to children.
3. In the case of complete dismantling, we recommend to strictly respect the local regulations regarding waste disposal.

SECURITY



The personnel responsible for the moving and instillation of the equipment must have gloves, which should be flexible and anti-sliding, have protective glasses as well as protecting shoes.

Protection equipment must always be used when necessary.

In general the best practices for safety in work and hygiene should be applied when working.

INSTALLATION



Verify the general aspect of the package. In the case there are signs of bad handling during transport, refer this in the transport documentation and inform your supplier. If all is well please proceed as follow:



1. The location where the cabinet will be installed is very important for its good working and consequent energy saving.



Avoid the proximity of heating sources (heaters, stoves, condensers and other appliances, etc.) drafts (windows, doors, ventilation systems, air conditioning, etc.), and places with strong exposure to solar rays.



Make sure that the socket of the feeding cable is always accessible.

Remove carefully plastics that protect some components.

Note: this equipment has not been developed to work in open air neither under rain.

2. In case that this manual has also additional "Assembling instructions", please follow the order mentioned for correct installation.



3. We recommend that when necessary an adequate mechanical protection is made, to avoid possible damages to the equipment caused by moving objects such as trolleys, cleaning machines, forklifts and other equipment.



4. Clean the interior and exterior of the cabinet with a smooth cloth and warm water with neutral soap (5% of the water volume).

Avoid that is gets splashed by the cleaning products used to wash the establishment. The substances used in cleaning of the floors can attack chemically the components of the unit.

Dry carefully all the rests of water with the help of a sponge. On the glass parts / acrylics use appropriated liquid to clean them.



When ever a spillages or contamination happens as a consequence of the rupture of a package inside the unit, it should be cleaned immediately and the evaporation tray of the con-



condensed water should be drained right away. Verify the drain pipes are not obstructed.

5. Level the cabinet on the horizontal, **by adjusting the feet** to allow:

⇒ Its good functioning,



⇒ A perfect disposal of residual waters and defrost waters of evaporator,

⇒ Noise reduction caused by the vibration of the moving parts.



6. The condensation group (compressor + condenser), commonly installed on the bottom of the cabinet, should not have, around it, any obstacle that reduces the necessary free circulation of air. Therefore, near the air circulation zones, you should not put boxes or other objects.



7. Verify if the power supply voltage and the tension of the place where the cabinet will be installed is according to what is indicated on the identification plate.

The connection must have a earth wire element that, besides being necessary, is demanded by law.



The appliance is not equipped with electric protection devices against overload, so it is recommended to verify the electric safety level of the installation network where the cabinet will be installed.

Do not connect any other appliance to the same power socket, nor use socket extensions.

We decline all liability for eventual injuries that may result to people, animals or products (good) for not respecting these instructions.

8. Turn on the cabinet 1 (one) hour after it has been installed.



On the appliances equipped with electronic thermostat temperature regulation is made according to the specific instructions that are supplied with the cabinet. This thermostat is already programmed from factory;; any changes made should be done by specialized technicians.

9. The control lights, in the case they exist, show the operation mode of the appliance:

GREEN Switch light (0 / I) with the light ON > means that the switch is on and there is electrical power in the equipment (units with electrical tension).

ORANGE Switch light (⚙) with the light ON > means that the light of the unit is turned on.

ORANGE Control On > means that the compressor is working.



10. After the cabinet has been switched on wait, at least 2 (two) hours before filling it with products. Make sure that filling the cabinet with the goods, the air circuit is not obstructed. (Example: the grids of air discharge and air intake, "Suction" and "Insufflation")

11. Respect the loading limits that are mentioned either directly on the cabinet by "___▼___▼___" or by the sticker aside the label with the features of the cabinet. Never display, products above this refrigeration level, as it can create disturbances of the air flow and as a consequence deteriorate the food



products displayed.

The shelves (in case they exist) placed above the refrigeration level they are exclusively to display products that are not in need of refrigeration (excluding the models that are conceived for such).



We remind that this equipment has not been conceived to lower the temperature of the food products displayed, but to maintain the temperature of the food products there placed.

Food products with temperature above the one recommend for the working of the equipment must not be placed inside the unit.



Do not leave the food products in boxes or pallets more than the necessary time to load the equipment (unit).

In the food display equipment; food products must be removed during the night and placed in a Cold Room or similar equipment to preserve the food temperature during the night.

In order to optimize the working of the equipment and the conservation of the food products use only complements and accessories supplied with the unit.

When the equipment is supplied with manual night curtains (that normally is an option), they must be opened and closed carefully in order to avoid the losing the vertical alignment and start to deteriorate.

Night curtains should always be used in order to reduce energy consumption.



When closing the night curtain do not forget to turn of the light inside the equipment.

PERIODICAL MAINTENANCE



1. The appliance, when equipped with automatic defrosting programmer, should be switched off and cleaned (see "Cleaning" chapter) at least once a month. **The accumulation of ice in the evaporator reduces the performance and makes the energy costs rise. Never remove the ice from the evaporator with metal objects such as knives or cutting objects. When the evaporator has ice the ideal is to let it defrost naturally of the evaporator.**



Water resulting from daily defrosting is collected in a plastic recipient that must be emptied, whenever necessary. In some models this procedure is not necessary since the water is re-evaporated in an appropriate place. **Special attention must be taken when a defrosting is made after ice is created in the evaporator, as the recipient for the condensed water may not have sufficient capacity and overflow.**



2. Before any maintenance or cleaning operation the appliance must be unplugged in order to guarantee, that it is not connected to electric power. The plug must be removed from the socket in order to insure that there is no electrical current of any type. Then remove all the products that are inside the cabinet and place them in a cold room or an adequate conservation place.

Whenever necessary to remove any protection or isolation all the procedures for this must be correctly followed. Never restart functioning without making sure that all the removed elements have been duly fitted on the appliance.



Cleaning

Internal and external cleaning must be done **monthly** with a soft cloth and warm water with neutral soap (5% of the water volume) without chlorine. In this chapter it is very important that the drainage hole of the condensed water is perfectly clear.

Dry carefully all the rests of water with the help of a sponge. On the glass parts use appropriated liquid to clean them.



Condenser cleaning should be made **monthly** or, whenever it shows impurities or **dirt** that may hinder or block free circulation of air. The removal of impurities or **dirt** must be done using a brush of soft hair (never use a metal brush), a vacuum cleaner or with air pressure flow.



Replacement of the neon lamps

1. Disconnect the power socket.
2. Press both polycarbonate protection caps of the lamp. Rotate both - lamp / protection caps- approximately 90° and remove the lamp.



In the case that the protection in polycarbonate is inserted, remove it with the help of a tool.

3. Rotate the lamp approximately 90° and remove it.
4. The lamp must be replaced by one with the same reference or equivalent.
5. To place a new lamp, repeat the same procedure in the opposite sense.

As to the recycling of the used lamps respect the local legislations and regulations that apply.



Important remarks

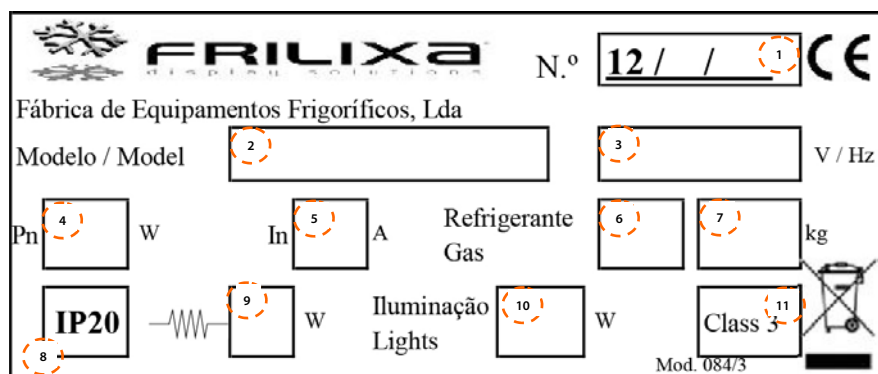
Do not spill water over boxes or electric components.

Do not use water pressure (jets) or any type of metallic objects in order to remove impurities or **dirt**.



Do not use substances or materials that are abrasives or solvents, avoiding the use of muriatic acid as well as detergents with chlorine base or pure alcohol.

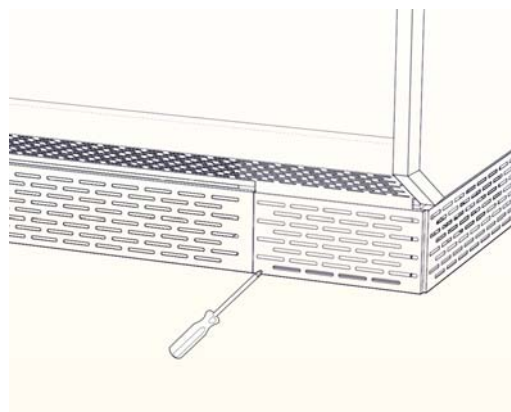
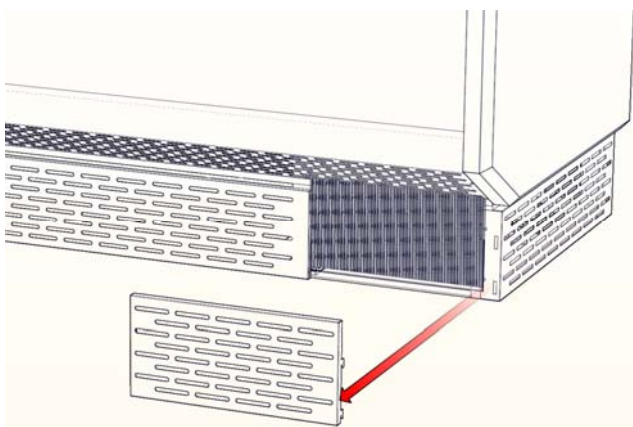
CHARACTERISTIC TAG



1. Serial Number
2. Model & Size
3. Tension / Frequency (V/Hz)
4. Power (W)
5. Current (A)
6. Refrigerant
7. Refrigerant Quantity
8. IP Protection
9. Resistances (W)
10. Lighting (W)
11. Climatic Range

PANELS BOTTOM SIDE

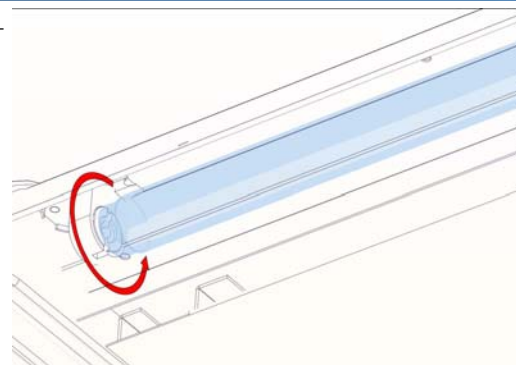
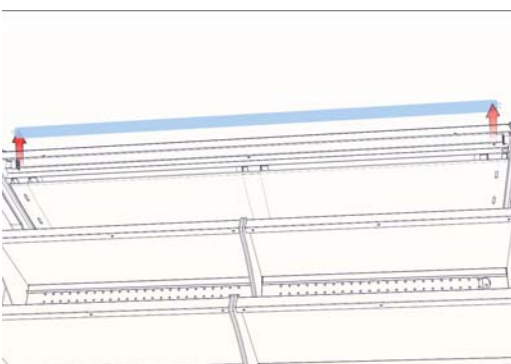
1. Remove panel on the front side by lifting it up with a screwdriver.
2. Slide the side panels backwards and remove these panels.



3. Loosen the screws from the back panel and lift this panel out.
4. Reverse the procedure to install.

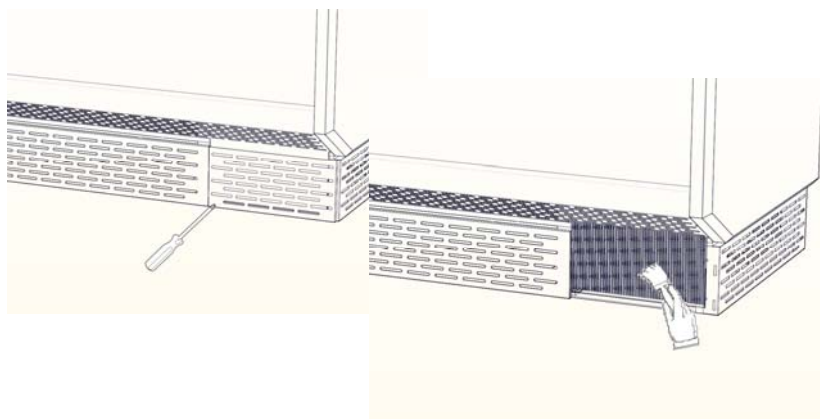
ILLUMINATION/TUMBLE SWITCH

1. Remove the socket screws on the top side and turn light fixture towards yourself.
2. Replace lamp.



3. Remove wiring from switch and remove the switch by pushing the clamps on both sides.
4. Reverse the procedure to install.

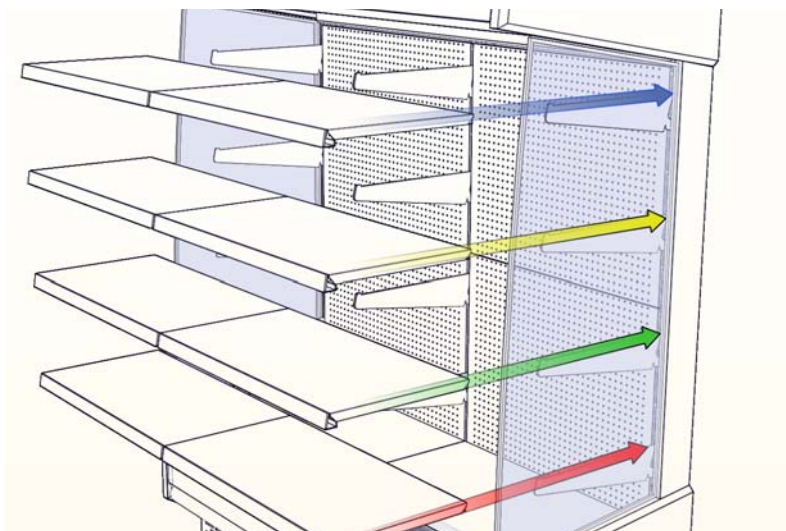
CONDENSER CLEANING



1. Remove panel on the front side by lifting it up with a screwdriver.
2. Cleaning the condenser as in the picture
3. Reverse the procedure to install.

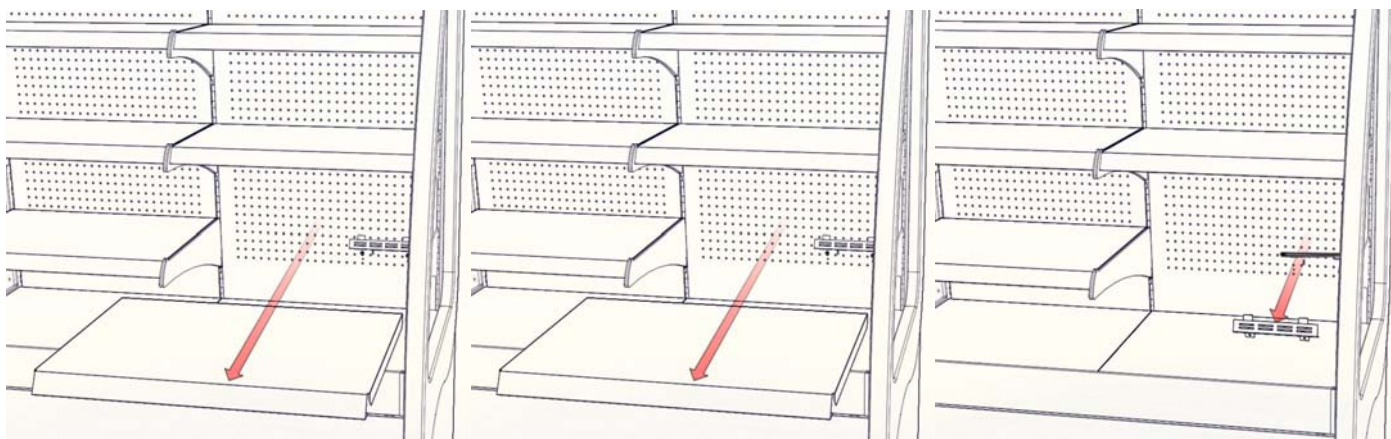
INSTALLING SHELVES

1. For removing the shelves is only necessary to push forward.
2. Reverse the procedure to install.



REPLACE PROBE

1. Remove the Shelf
2. Remove the probe is shown for the picture beside
3. Reverse the procedure to install.



ADJUSTING CAREL PJEZ



INTRODUCTION

Easy and easy compact are electronic microprocessor controllers with LED display, developed for the management of refrigerating units, display cabinets and showcases. They exploit the experience and the success of the previous PJ32 range, with the objective of offering a product that is simpler and more economical.

The structure of the parameters has been enhanced with new functions for more dynamic and effective management of the temperature control and defrost. easy compact the smallest, most economical easy model, with one relay only, and a simplified display.

Main characteristics

The following table lists the main features of the easy and easy compact controllers.

Features		Models	
		easy	easy compact
Ergonomic polycarbonate keypad with three buttons		✓	✓
Keypad protection to prevent tampering		✓	✓
Access to the configuration parameters by password		✓	✓
Digit display		-199 to 999	-99 to 99
Decimal point		✓	✓
Display in °C or °F		✓	✓
LED display		☹️ ❄️ ❄️ AUX 🔔 🕒	☹️
Defrost (*)	- by stopping the compressor	✓	✓
	- heater	✓	-
	- hot gas	✓	-
	- heater with temperature control	✓	-
Duty setting function		✓	✓
Continuous cycle function		✓	✓
Relay outputs (*)		☹️ ❄️ ❄️ AUX	☹️ AUX
Up to two analogue inputs for NTC or PTC probes (*)		✓	✓
Multifunction analogue or digital input (*)		✓	-
In the models with at least 2 probes: display second/third probe (*)		✓	✓
Input for CAREL IROPZKEY** programming key (*)		✓	✓
Input for external CAREL IROPZ485 connector (RS485 network) (*)		✓	✓
Buzzer (audible alarm signals) (*)		✓	-
Fixed or removable terminals		✓	✓
Fastening from rear or front		✓	✓
Easy Set (rapid instrument configuration selection)		✓	✓

USER INTERFACE AND START UP

ADJUSTING CAREL PJEZ (CONTINUED)

Display

easy

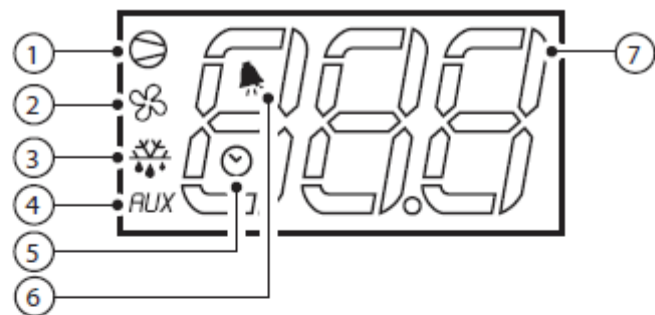


Fig. 3.a

but. no.	function	normal operation			start up
		ON	OFF	flash	
1	compressor	on	off	call	ON
2	fan	on	off	call	ON
3	defrost	on	off	call	ON
4	auxiliary output (AUX)	output active	output not active	-	ON
5	clock (RTC)	RTC available, enabled (tEN=1) and at least one time band has been set	RTC not available or not enabled (tEN=0) or no time band set		ON (if the clock is fitted)
6	alarm	alarm in progress	no alarm in progress	-	ON
7	digits	three digits with decimal point and range -199 to 999. See parameters /4, /5, /6 for the type of probe displayed, values in °C/°F and decimal point			

Keypads

Keypad functions for easy and easy compact models C, S, X, Y

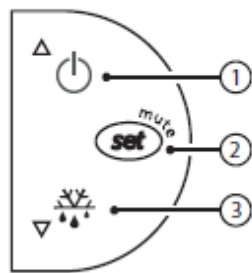


Fig. 3.c

ADJUSTING CAREL PJEZ (CONTINUED)

but. no.	normal operation		start up	
	pressing the button alone	pressing with other buttons		
1	more than 3 s: switch ON/OFF	pressed together with 3 activates /deactivates the continuous cycle	-	
2	- 1 s: displays/sets the set point - more than 3 s: accesses the parameter setting menu (enter password 22) - mutes the audible alarm (buzzer)	-	for 1 s RESET current EZY set	pressed together (2 and 3) activate parameter reset procedure
3	more than 3 s: activates /deactivates the defrost	pressed together with 1 activates /deactivates the continuous cycle	for 1 s displays firmware version	

Preliminary configurations

Once the electrical connections have been completed, simply power-up the controller to make it operative. CAREL then recommends to check that the display does not show any alarm signals, then set the time and date, and finally set the parameters as desired. The main parameters are as follows:

Control parameters

st	set point
rd	set point differential

Defrost parameters

d0	type of defrost
dl	interval between two defrosts
dt	end defrost temperature
dP	maximum defrost duration

* SC1 - PROBE

** PS - PASSWORD

Functions available from the keypad

On and off

ADJUSTING CAREL PJEZ (CONTINUED)

Switching the instrument ON: press UP for more than 3 s (when pressing the button, the display shows ON).

Switching the instrument OFF: press UP for more than 3 s. The display shows the message "OFF", alternating with the temperature measured by the set probe.

In off status, the following functions are disabled (if featured by the model):

- compressor control / duty setting / continuous cycle;
- defrost;
- fan control;
- alarms : 'LO', 'HI', 'IA', 'cht', 'CHT';
- door switch (A4= 7/8);
- buzzer (when available)

While the following are enabled:

- temperature display, alternating with the message "OFF";
- parameter display and setting;
- alarms: "E0", "E1", "E2";
- the internal timer relating to parameter 'dl' is updated. If 'dl' expires in
- OFF status, a defrost is performed when restarting;
- auxiliary relay management, only in the following configurations:
 - H1= 1/2 ("E0" alarm only)
 - H1= 3, A4= 6;

Set point setting (desired temperature value)

The easy and easy compact devices control the desired temperature (set point) inside the cabinet or cold room directly and dynamically.

To view and modify the set point:

- press SET for 1 s, the set value will start flashing;
- increase or decrease the value using UP or DOWN;
- press SET to confirm the new value.

Important: the PJEZM* models fitted with keypad simply monitor the deviation from the set point and where necessary signal na alarm. On these models, the set point can only be modified using parameter "St".

Manual defrost

Not available on the easy and easy compact thermometer models (M).

Press DOWN for more than 3 s (activated only if the temperature conditions are right).

Continuous cycle

Not available on the easy and easy compact thermometer models (M).

Press UP+DOWN for more than 3 s (activated only if the temperature conditions are right).

The continuous cycle is used to maintain refrigeration active in the cabinet or cold room, regardless of the temperature inside the unit. This may be useful for rapidly bringing the temperature below the set point value.

Rapid display of the temperature read by the other probes

ADJUSTING CAREL PJEZ (CONTINUED)

Press the DOWN button to scroll the temperatures read by the probes.

Each time the DOWN button is pressed, the display will show the name of the probe Pr1, Pr2 or Pr3 (only on the models with 3 inputs and with multi-function input configured as a probe) and after 1 s the temperature measured by the selected probe will be displayed.

To display the other probes, press DOWN again.

To return to the normal display, wait 3 s without pressing any buttons (exit by timeout).

TABLES OF ALARMS AND PARAMETERS

Table of alarms and signals

When an alarm is activated, the display shows the corresponding message that flashes alternating with the temperature; if fitted and enabled, the buzzer and the alarm relay are also activated. All the alarms have automatic reset (that is, they stop when the causes are no longer present), except for alarm 'CHT' which has manual reset (instrument on/off using the UP button or by disconnecting the power supply). Pressing the SET button mutes the buzzer, while the code displayed and the alarm relay only go off when the causes of the alarm have been resolved. The alarm codes are shown in the table below:

alarm code	buzzer and alarm relay	LED	alarm description	reset	ENABLE ALARM parameters involved	easy	easy compact
E0	active	ON	probe 1 error= control	automatic	-	✓	✓
E1	not active	ON	probe 2 error= defrost	automatic	d0= 0 / 1 / 4, F0= 1	✓	✓
E2	not active	ON	probe 3 error= condenser/product	automatic	[A4=10]	✓	-
IA	active	ON	external alarm	automatic	[A4 = 1] [+A7]	✓	-
dOr	active	ON	open door alarm	automatic	[A4 = 7/8][+A7]	✓	-
LO	active	ON	low temperature alarm	automatic	[AL] [Ad]	✓	✓
HI	active	ON	high temperature alarm	automatic	[AH] [Ad]	✓	✓
EE	not active	ON	unit parameter error	not possible	-	✓	✓
EF	not active	ON	operating parameter error	manual	-	✓	✓
Ed	not active	ON	defrost ended by timeout	on first defrost ended correctly	[dP] [dt] [d4] [A8]	✓	✓
dF	not active	OFF	defrost running	automatic	[d6=0]	✓	✓
cht	not active	ON	dirty condenser pre-alarm	automatic	[A4=10]	✓	-
CHt	active	ON	dirty condenser alarm	manual	[A4=10]	✓	-
EtC	not active	ON	clock alarm	by setting the time	if bands active	✓	-

Description of the main signals and alarms

LED flashing

The activation of the corresponding function is delayed by a timer, awaiting an external signal or disabled by another procedure that is already in progress. e.g. if a continuous cycle in progress and a defrost is called, the latter will remain pending until the end of the continuous cycle, and the corresponding LED (defrost) will flash.

E0 steady or flashing

control probe error:

- probe not working: the probe signal is interrupted or short-circuited;
- probe not compatible with the instrument;

The alarm signal E0 is steady if it is the only active alarm (the temperature value is not displayed), while it flashes if other alarms are active or the second probe is displayed.

E1 flashing

evaporator probe or food conservation probe error:

- probe not working, the probe signal is interrupted or short-circuited;
- probe not compatible with the instrument;

ADJUSTING CAREL PJEZ (CONTINUED)

E2 flashing

condenser probe or food conservation probe error:

- probe not working, the probe signal is interrupted or short-circuited;
- probe not compatible with the instrument;

IA flashing

immediate or delayed alarm from multifunction digital input:

- check the multifunction input and parameters A4 and A7.

dOr flashing

open door alarm:

- check the multifunction input and parameters A4 and A7.

LO flashing

low temperature alarm. The probe has measured a temperature lower than the set point by a value that exceeds parameter AL:

- check parameters AL, Ad and A0.

The alarm is automatically reset when the temperature returns within the set limits (see parameter AL).

HI flashing

high temperature alarm. The probe has measured a temperature higher than the set point by a value that exceeds parameter AH.

- check parameters AH, Ad and A0.

The alarm is automatically reset when the temperature returns within the set limits (see parameter AH).

EE displayed during operation or on power-up
unit parameter reading error. See Data errors.

EF displayed during operation or on power-up
operating parameter reading error. See Data errors.

Ed flashing

The last defrost ended after exceeding the maximum duration rather than when reaching the end defrost set point.

- check parameters dt, dP and d4;
- check the efficiency of the defrost.

The message disappears when the next defrost ends correctly.

dF flashing

defrost running:

- this is not an alarm signal, but rather a message that the instrument is running a defrost. Only shown if d6= 0.

cht flashing

dirty condenser pre-alarm:

- check parameters A4, Ac, AE and Acd.

CHt flashing

dirty condenser alarm:

- check parameters A4, Ac, AE and Acd.

EtC flashing

internal clock error.

Data error

ADJUSTING CAREL PJEZ (CONTINUED)

In certain operating conditions, the instrument may detect errors in the data saved. These errors may compromise the correct operation of the instrument. If the microprocessor detects a data saving error, the display shows the message "EE". If the fault persists, the controller needs to be replaced. If, on the other hand, the message disappears, it can continue to be used. When "EE" error occurs frequently and/or remains for some time, the controller should be checked, as the original precision may not be guaranteed.

Modifying the parameters

Parameter navigation

The operating parameters, modifiable using the keypad, are divided into two types: frequent (type F) and configuration (type C). Access to the latter is protected by password (default= 22) to prevent accidental or unauthorized modifications.

Accessing the type F parameters:

- press the SET button for more than 3 s (if there are active alarms, mute the buzzer), the display shows the parameter code 'PS' (password);
- use the UP and DOWN buttons to scroll the parameters. The LED corresponding to the category of parameters will be on (see Table 5.b);
- press SET to display the value associated with the parameter increase or decrease the value using the UP or DOWN button respectively;
- press SET to temporarily save the new value and display the parameter again;
- repeat the procedure for any other parameters that need to be modified;
- press the SET button for more than 3 s to permanently save the parameters and exit the parameter setting procedure.

Accessing the type C parameters:

- press the SET button for more than 3 s (if there are active alarms, mute the buzzer), the display shows the parameter code "PS" (password);
- press the SET button to access the password setting;
- use the UP and DOWN buttons to scroll the numbers until displaying "22" (password to access the parameters);
- press the SET button to confirm the password;
- use the UP and DOWN buttons to scroll the parameters. The LED corresponding to the category of parameters will be on (see Table 5.b);
- press SET to display the value associated with the parameter increase or decrease the value using the UP or DOWN button respectively;
- press SET to temporarily save the new value and display the parameter again;
- repeat the procedure for any other parameters that need to be modified;
- press the SET button for more than 3 s to permanently save the parameters and exit the parameter setting procedure.

Setting the default parameters

To reset the default parameters:

- disconnect power from the instrument;
- reconnect power while holding the SET and DOWN buttons;
- the display will show the message "CF";
- after a few seconds the instrument starts operating with the default configuration. Any different parameter settings will need to be updated.

Table of easy parameters

Par.	Description	Type	Min	Max	UOM.	Def.	Parameter visible in models
PS	password	F	0	200	-	22	M/S (with 1 & 2 probes), X, Y, C
/2	probe measurement stability	C	1	15	-	4	M/S (with 1 & 2 probes), X, Y, C
/4	select probe displayed	F	1	3	-	1	M/ S (with 2 probes), X, Y, C
/5	select °C/°F	C	0(°C)	1(°F)	-	0	M/ S (with 1 & 2 probes), X, Y, C
/6	disable decimal point	C	0	1	-	0	M/S (with 1 & 2 probes), X, Y, C
/7	enable probe 2 alarm (model M only)	C	0	1	0	0	M
/C1	probe 1 offset	F	-12.7	+12.7	(°C/°F)	0	M/S (with 1 & 2 probes), X, Y, C
/C2	probe 2 offset	F	-12.7	+12.7	(°C/°F)	0	M/S (with 2 probes), X, Y, C
/C3	probe 3 offset	F	-12.7	+12.7	(°C/°F)	0	M/S (with 2 probes), X, Y, C
St	set point	S	r1	r2	°C/°F	4	M/S (with 1 & 2 probes), X, Y, C
r1	minimum set point value	C	-50	r2	°C/°F	-50	M/S (with 1 & 2 probes), X, Y, C
r2	maximum set point value	C	r1	+150	°C/°F	90	M/S (with 1 & 2 probes), X, Y, C
r3	select direct/reverse operation	C	0	2	-	0	S (with 1 & 2 probes), X, Y, C
r4	night-time set point delta	C	-50	+50	°C/°F	3	M/S (with 2 probes), X, Y, C
rd	control differential	F	0	+19	°C/°F	2	S (with 1 & 2 probes), X, Y, C
c0	compressor and fan start delay on power-up	C	0	100	min	0	S (with 1 & 2 probes), X, Y, C
c1	minimum time between consecutive compressor starts	C	0	100	min	0	S (with 1 & 2 probes), X, Y, C
c2	minimum compressor off time	C	0	100	min	0	S (with 1 & 2 probes), X, Y, C
c3	minimum compressor on time	C	0	100	min	0	S (with 1 & 2 probes), X, Y, C
c4	compressor on time with duty setting	C	0	100	min	0	S (with 1 & 2 probes), X, Y, C
cc	continuous cycle duration	C	0	15	h	4	S (with 1 & 2 probes), X, Y, C
c6	temperature alarm bypass after continuous cycle	C	0	15	h	2	S (with 1 & 2 probes), X, Y, C
d0	type of defrost	C	0	4	-	0	S (with 1 & 2 probes), X, Y, C
dl	interval between defrosts	F	0	199	h/min (see dC)	8	S (with 1 & 2 probes), X, Y, C
dt	end defrost temperature set point/defrost temperature threshold with temp. control	F	-50	+127	°C/°F	4	S (with 2 probes), X, Y, C

ADJUSTING CAREL PJEZ (CONTINUED)

dP	maximum defrost duration	F	1	199	min/s (see dC)	30	S (with 1 & 2 probes), X, Y, C
d4	defrost when switching the instrument on	C	0	1	-	0	S (with 1 & 2 probes), X, Y, C
d5	defrost delay on power-up or when enabled by digital input	C	0	199	min	0	S (with 1 & 2 probes), X, Y, C
d6	freeze control temperature display during defrost	C	0	1	-	1	S (with 1 & 2 probes), X, Y, C
dd	dripping time	F	0	15	min	2	S (with 1 & 2 probes), X, Y, C
d8	alarm bypass time after defrost	F	0	15	h	1	S (with 1 & 2 probes), X, Y, C
d9	defrost priority over compressor protectors	C	0	1	-	0	S (with 1 & 2 probes), X, Y, C
d/	defrost probe reading (2)	F	-	-	°C/°F	-	S (with 2 probes), X, Y, C,
dC	time base	C	0	1	-	0	S (with 1 & 2 probes), X, Y, C
A0	alarm and fan temperature differential	C	-20	+20	°C/°F	2	M/S (with 1 & 2 probes), X, Y, C
AL	absolute/relative temperature for low temperature alarm	F	-50	150	°C/°F	0	M/S (with 1 & 2 probes), X, Y, C
AH	absolute/relative temperature for high temperature alarm	F	-50	150	°C/°F	0	M/S (with 1 & 2 probes), X, Y, C
Ad	temperature alarm delay	C	0	199	min	0	M/S (with 1 & 2 probes), X, Y, C
A4	3rd input configuration	C	0	11	-	0	M/S (with 2 probes), X, Y, C
A7	digital input alarm delay	C	0	199	min	0	M/S (with 2 probes), X, Y, C
A8	enable alarm "Ed" (end defrost by timeout)	C	0	1	-	0	S (with 2 probes), X, Y, C
Ac	set point dirty condenser alarm	C	-50	+150	°C/°F	70	M/S (with 2 probes), X, Y, C
AE	dirty condenser alarm differential temperature	C	0.1	20.0	°C/°F	5.0	M/S (with 2 probes), X, Y, C
Acd	dirty condenser alarm delay	C	0	250	min	0	M/S (with 2 probes), X, Y, C
F0	enable evaporator fan control	C	0	1	-	0	C
F1	evaporator fan control set point	F	-50	+127	°C/°F	+5	C
F2	stop evaporator fan if compressor off	C	0	1	-	1	C
F3	evaporator fan status during defrost	C	0	1	-	1	C
Fd	post-dripping time	F	0	+15	min	1	C
H0	serial address	C	0	207	-	1	M/S (with 1 & 2 probes), X, Y, C
H1	AUX output configuration	C	0	3	-	0	M/S (with 1 & 2 probes), X, Y, C
H2	enable keypad	C	0	1	-	1	M/S (with 1 & 2 probes), X, Y, C
H4	disable buzzer	C	0	1	-	0	M/S (with 1 & 2 probes), X, Y, C
H5	ID code (read-only)	F	0	199	-	-	M/S (with 1 & 2 probes), X, Y, C
EZY	rapid parameter set selection	C	0	4	-	0	S (with 1 & 2 probes), X, Y, C
tEn	enable RTC	C	0	1	-	0	X, Y, C
dAY	RTC day of the week	C	1	7	days	0	X, Y, C
hr	RTC hours	C	0	23	h	0	X, Y, C
Min	RTC minutes	C	0	59	min	0	X, Y, C
d1d	defrost time band 1st day	C	0	11	days	0	X, Y, C
d1h	time band 1st hour	C	0	23	h	0	X, Y, C
d1m	time band 1st minute	C	0	59	min	0	X, Y, C
d2d	defrost time band 2nd day	C	0	11	days	0	X, Y, C
d2h	time band 2nd hour	C	0	23	h	0	X, Y, C
d2m	time band 2nd minute	C	0	59	min	0	X, Y, C
d3d	defrost time band 3rd day	C	0	11	days	0	X, Y, C
d3h	time band 3rd hour	C	0	23	h	0	X, Y, C
d3m	time band 3rd minute	C	0	59	min	0	X, Y, C
d4d	defrost time band 4th day	C	0	11	days	0	X, Y, C
d4h	time band 4th hour	C	0	23	h	0	X, Y, C
d4m	time band 4th minute	C	0	59	min	0	X, Y, C
nOd	night time band ON day	C	0	11	days	0	X, Y, C
nOh	night time band ON hours	C	0	23	h	0	X, Y, C
nOm	night time band ON minutes	C	0	59	min	0	X, Y, C
nFd	night time band OFF day	C	0	11	days	0	X, Y, C
nFh	night time band OFF hours	C	0	23	h	0	X, Y, C
nFm	night time band OFF minutes	C	0	59	min	0	X, Y, C
Par.	Description	Type	Min	Max	UOM.	Def.	Parameter visible in models
Aod	AUX time band ON day	C	0	11	days	0	X, Y, C
Aoh	AUX time band ON hours	C	0	23	h	0	X, Y, C
Aom	AUX time band ON minutes	C	0	59	min	0	X, Y, C
Afd	AUX time band OFF day	C	0	11	days	0	X, Y, C
AFH	AUX time band OFF hours	C	0	23	h	0	X, Y, C
Afm	AUX time band OFF minutes	C	0	59	min	0	X, Y, C

Table of easy compact parameters

Par.	Description	Type	Min	Max	UOM.	Def.	Parameter visible in models
PS	password	F	0	99	-	22	S (with 1 & 2 probes), M (with 1 & 2 probes)
/2	probe measurement stability	C	1	15	-	4	S (with 1 & 2 probes), M (with 1 & 2 probes)
/4	select probe displayed	F	1	2	-	1	S (with 2 probes), M (with 2 probes)
/5	select °C/°F	C	0	1	-	0	S (with 1 & 2 probes), M (with 1 & 2 probes)
/6	disable decimal point	C	0	1	-	0	S (with 1 & 2 probes), M (with 1 & 2 probes)
/7	enable probe 2 alarm (model M only)	C	0	1	0	0	M
/C1	probe 1 offset	F	-12.7	+12.7	°C/°F	0	S (with 1 & 2 probes), M (with 1 & 2 probes)
/C2	probe 2 offset	F	-12.7	+12.7	°C/°F	0	S (with 2 probes), M (with 2 probes)
St	set point	S	r1	r2	°C/°F	4	S (with 1 & 2 probes), M (with 1 & 2 probes)

ADJUSTING CAREL PJEZ (CONTINUED)

r1	minimum set point value	C	-50	r2	°C/°F	-50	S (with 1 & 2 probes), M (with 1 & 2 probes)
r2	maximum set point value	C	r1	+99	°C/°F	90	S (with 1 & 2 probes), M (with 1 & 2 probes)
r3	select direct/reverse operation	C	0	2	-	0	S (with 1 & 2 probes)
rd	control differential	F	0	+19	°C/°F	2	S (with 1 & 2 probes)
c0	compressor and fan start delay on power-up	C	0	100	min	0	S (with 1 & 2 probes)
c1	minimum time between consecutive compressor starts	C	0	100	min	0	S (with 1 & 2 probes)
c2	minimum compressor off time	C	0	100	min	0	S (with 1 & 2 probes)
c3	minimum compressor on time	C	0	100	min	0	S (with 1 & 2 probes)
c4	compressor on time with duty setting	C	0	100	min	0	S (with 1 & 2 probes)
cc	continuous cycle duration	C	0	15	h	4	S (with 1 & 2 probes)
c6	temperature alarm bypass after continuous cycle	C	0	15	h	2	S (with 1 & 2 probes)
d0	type of defrost	C	0	4	-	0	S (with 1 & 2 probes)
dl	interval between defrosts	F	0	199	h/min(dC)	8	S (with 1 & 2 probes)
dt	end defrost temperature set point	F	-50	+127	°C/°F	4	S (with 2 probes)
dP	maximum defrost duration	F	1	199	min/s (dC)	30	S (with 1 & 2 probes)
d4	defrost when switching the instrument on	C	0	1	-	0	S (with 1 & 2 probes)
d5	defrost delay on power-up or when enabled by digital input	C	0	199	min	0	S (with 1 & 2 probes)
d6	freeze control temperature display during defrost	C	0	1	-	1	S (with 1 & 2 probes)
dd	dripping time	F	0	15	min	2	S (with 1 & 2 probes)
d8	alarm bypass time after defrost	F	0	15	h	1	S (with 1 & 2 probes)
d9	defrost priority over compressor protectors	C	0	1	-	0	S (with 1 & 2 probes)
d/	defrost probe reading (2)	F	-	-	°C/°F	-	S (with 2 probes)
dC	time base	C	0	1	-	0	S (with 1 & 2 probes)
A0	alarm and fan temperature differential	C	-20	+20	°C/°F	2	S (with 1 & 2 probes)
AL	absolute/relative temperature for low temperature alarm	F	-50	+99	°C/°F	0	S (with 1 & 2 probes)
AH	absolute/relative temperature for high temperature alarm	F	-50	+99	°C/°F	0	S (with 1 & 2 probes)
Ad	temperature alarm delay	C	0	199	min	0	S (with 1 & 2 probes)
A8	enable alarm "Ed" (end defrost by timeout)	C	0	1	-	0	S (with 2 probes)
H0	serial address	C	0	207	-	1	S (with 1 & 2 probes), M (with 1 & 2 probes)
H1	AUX output configuration	C	0	2	-	0	S (with 1 & 2 probes), M (with 1 & 2 probes)
H2	enable keypad	C	0	2	-	1	S (with 1 & 2 probes), M (with 1 & 2 probes)
H5	ID code (read-only)	F	1	+199	-	0	S (with 1 & 2 probes), M (with 1 & 2 probes)
EY	rapid parameter set selection	C	0	4	-	0	S (with 1 & 2 probes)

Table of EYZ parameter sets

easy parameter sets (EYZ)

Par.	Description	models S-X (normal temperature)				models Y-C (low temperature)			
		EYZ=1	EYZ=2	EYZ=3	EYZ=4	EYZ=1	EYZ=2	EYZ=3	EYZ=4
/4	select probe displayed	1	1	1	1	-	-	-	-
/5	select °C/°F	0	0	0	0	-	-	-	-
rd	control differential	3.0	3.0	5.0	2.0	3.0	4.0	5.0	2.0
r1	minimum set point value	-10.0	-15.0	-20.0	-30.0	-30.0	-30.0	-30.0	-30.0
r2	maximum set point value	15.0	20.0	20.0	40.0	20.0	20.0	30.0	40.0
r3	select direct/reverse operation	1	0	2	0				
r4	night-time set point delta	-	-	-	-	5.0	5.0	2.0	4.0
c1	minimum time between consecutive compressor starts	3	5	0	6	4	5	3	6
c2	minimum compressor off time	2	4	0	4	2	3	0	5
d0	type of defrost	2	2	0	4	1	2	3	4
dl	interval between defrosts	6	10	6	12	5	7	10	12
dt	end defrost temperature set point/defrost temperature threshold with temp. control	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
dP	maximum defrost duration	40	40	40	40	20	40	10	50
d6	freeze control temperature display during defrost	1	1	1	1	-	-	-	-
dC	time base	0	0	0	0	0	0	0	0
A0	alarm and fan temperature differential	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
AL	temperature alarm threshold/deviation	20.0	25.0	20.0	20.0	22.0	15.0	18.0	20.0
AH	high temperature alarm threshold/deviation	20.0	25.0	20.0	20.0	22.0	25.0	20.0	25.0
Ad	temperature alarm delay	60	70	60	60	20	40	30	25
A4	3rd input configuration	-	-	-	-	0	4	1	0
A7	digital input alarm delay	-	-	-	-	0	20	30	20
Ac	set point dirty condenser alarm	55.0	50.0	70.0	55.0	55.0	55.0	55.0	55.0
AE	dirty condenser alarm differential temperature	10.0	8.0	10.0	10.0	10.0	10.0	10.0	10.0
Acd	dirty condenser alarm delay	60	40	200	60	60	60	60	60
F0	enable evaporator fan control	-	-	-	-	1	0	1	0
F1	evaporator fan control set point	-	-	-	-	5.0	5.0	5.0	5.0
F2	stop evaporator fan if compressor off	-	-	-	-	1	1	1	1
F3	evaporator fan status during defrost	-	-	-	-	1	1	1	1
Fd	post-dripping time	-	-	-	-	3	4	5	6

ADJUSTING CAREL PJEZ (CONTINUED)

Key:

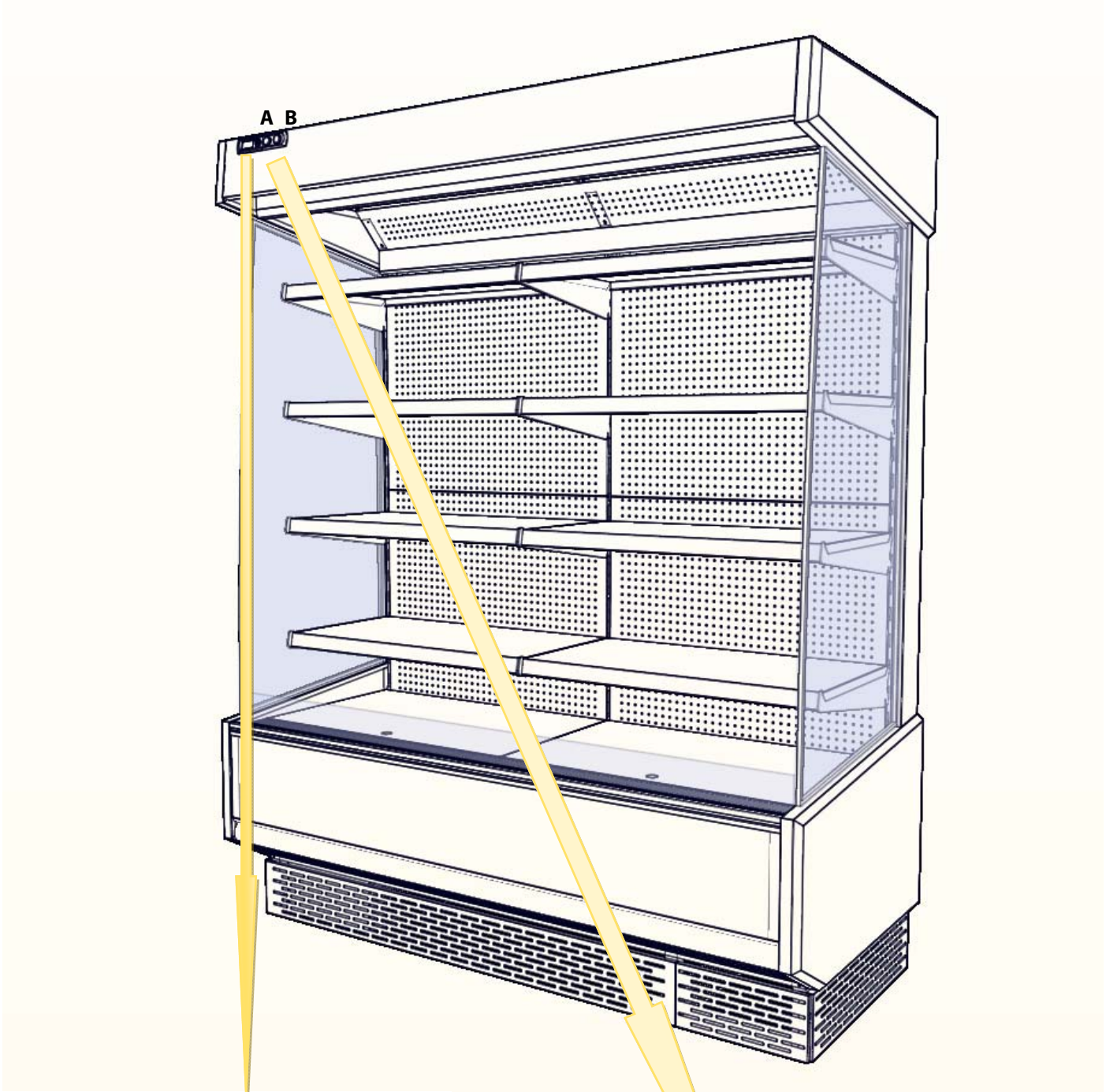
EZY=	normal temperature	low temperature
1	no defrost	defrost by hot gas
2	defrost by time	automatic night-time set point variation from digital input
3	heating output	digital input alarm management
4	defrost with temp. control (d0= 4)	defrost by temperature (d0=4)

Troubleshooting

The following table shows a number of anomalous situations that may occur on the various models. The most frequent causes and corresponding checks are described:

problem	cause	checks
the compressor does not start (signalled by the compressor LED flashing)	- compressor delay set/defrost post - dripping in progress	parameters c0, c1 and c2 and dd
the temperature is over the set limits but there is no alarm message and the buzzer, if fitted, does not sound	alarm delay set	parameters Ad, c6, d8
alarm IA is signalled (multifunction input) without actually being active	the multifunction input generates an alarm when the contact opens	connection of the input and whether this is closed in normal operation
the alarm connected to the multifunction input is not detected	alarm delay set or parameter programming error	1. if A4=1 2. the status of digital input A7
the defrost is not activated	- defrost duration too short (dP) - interval between defrosts dl=0: in this case the defrost is not activated	parameters dP and dl and H1 for S models
	the end defrost temperature is too low or the evaporator temperature is too high	parameters dt and d/ (defrost probe)
the manual defrost is not activated and the defrost LED flashes	compressor protection times set	parameter d9 (select d9=1)
the high temperature alarm is shown after a defrost	the alarm delay after defrost is too short or the alarm threshold is too low	parameters d8 and AH
the display remains frozen even after the defrost	the ambient temperature has not yet reached the set point or alternatively the time d8 has not elapsed	wait or reduce d8
after modifying a parameter the controller continues working with the old values	the instrument has not updated the old value or alternatively the parameter setting procedure has not been ended correctly by pressing the SET button for 3 s	turn the instrument off and on again or alternatively reprogram the parameters correctly
for C models, the fan does not start	1. a compressor and fan start delay has been set 2. if F0=1 (fan managed by fan controller) - the evaporator is "hot": the evaporator temperature can be read by selecting parameter /d; - dripping in progress; - F1 (evaporator fan control set point) too low. - post-dripping delay set 3. if F0=0 - F2=1 and the compressor is off - dripping in progress - post-dripping in progress	1. parameter c0 2. parameters F0, F1, Fd, dd and d/ 3. parameters F0, F2, dd and Fd

CONTROL LOCATIONS



Thermostat

Switch: {
A: Light
B: Main 220V

GENERAL TROUBLESHOOTING LIST

Failure	Possible Reason	What to do
<i>The device is not working, does not start.</i>	No power to unit	Check if plug is properly wired. Check if plug is earthed and neutral wired. Check if any circuit breaker is down in the electrical box.
<i>Not cooling</i>	Condenser blocked. Evaporators blocked. Air flow in the condenser obstructed.	It often happens that all the refrigeration components are working and still don't cool. Check : The condenser – make sure it is clean otherwise clean it. Remove all the objects that may prevent the good air flow into the condenser. The evaporators - check evaporators for ice or blocked with products that may prevent the air flow. If they are blocked press dF button and wait until the ice is completely removed even if you need to repeat this operation. Remove all the objects that may prevent the good airflow into the evaporators. As general advice: avoid direct sunlight or heat sources that can affect on the device like heaters, projectors, ventilators or air conditioning equipment and/or ventilation that has direct effect on the refrigerated equipment.
<i>Compressor broke down</i>	Compressor "burns" for: Too many starts. Lack of refrigerant. Power supply failure. Filter obstructed. Condenser obstructed.	If the compressor is "burnt", the technician who will replace it has to consider: Refrigerant recovery if still existing. Do not pour the oil of the replaced compressor. To be quick in the replacement so that the oil of the new compressor is not in contact a too long time with the air as this later is highly hygroscopic (capacity of absorbing water). Once the circuit is sealed, make a good vacuum and recharge the quantity of refrigerant. Filters should be also replaced as these have the property of retaining undesirable particles in the installation and also humidity. The compressor should be replaced by one with identical features.
<i>Refrigerant leaking</i>	Charging valve unscrewed. Poor use solder. Incomplete welding. Broken tubes. Attempted defrosting with pointed objects.	Check if the device is working. If the condenser is not obstructed. If the condenser is not obstructed and if the fans are working switch of the devices as it looks like a leak refrigerant. Call engineer to detect the leak, to eliminate it and change the filters – make the vacuum and replace the refrigerant quantity.
<i>Condensate water evaporation system</i>	Heater burnt.	According to the system you are using, if your equipment makes the power supply down or circuit breaker down, it is possible that one of the components has earthed wired and it may be the heater burnt. Note: these operations should be carried out by skilled people and when heaters are diving in water.
<i>Lights failed</i>	Starter or tube failure	If the tubes don't light check them or starters. When you replace the tube and if this is still failing then replace the ballast. It may come from the oxidation of the terminals because of the humid ambient of these devices.

GENERAL TROUBLESHOOTING LIST (CONTINUED)

<i>Water on floor</i>	Bad leveled. Evaporation system failed.	If some water appears on the floor, see if the equipment is leveled. Check if the automatic system of evaporation of waters is working properly or drain waters system is not blocked. Some condensate waters can be released on the walls because of bad circulation of steam so keep the device away from walls.
<i>Controller failed</i>	Probe unwired from the terminals. Probe with cut wire. Probe with humidity.	See if there is any message error on the display. Check that switches are well connected; if so call the technician to check for the possible failure.
<i>Controller "burnt"</i>	Power excess. Starts exceed. Water in the circuit.	Replace the controller and check the origin of the failure.
<i>Controller with unsettled parameters</i>	Operating by unskilled people.	Call the technician to reprogram the controller parameters.
<i>Condenser fans failed</i>	Failure by obstruction.	Replace fans. Check the source of failure.
<i>Evaporator fans failed</i>	Water inside the circuit. Failure by obstruction.	Replace the fans. Check the source of failure.



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